

Title (en)

LIGHT AMPLIFIER USING RAMAN AMPLIFICATION AND CONTROL METHOD THEREOF

Title (de)

LICHTVERSTÄRKER UNTER VERWENDUNG DER RAMANVERSTÄRKUNG UND ZUGEHÖRIGES STEUERUNGSVERFAHREN

Title (fr)

AMPLIFICATEUR DE LUMIERE UTILISANT UNE AMPLIFICATION DE RAMAN ET PROCEDE DE COMMANDE DE L'AMPLIFICATEUR

Publication

EP 1215527 A1 20020619 (EN)

Application

EP 00956816 A 20000830

Priority

JP 0005885 W 20000830

Abstract (en)

[origin: WO0219023A1] A light amplifier improved in noise characteristics by controlling an amplifying operation with a noise light effect by Raman amplification taken into consideration and with a noise factor of the entire amplifier assumed, and a control method thereof. The light amplifier comprises a first light amplifying means for Raman-amplifying a signal light by supplying an excitation light to a Raman amplifying medium, a second light amplifying means for amplifying the signal light output from the first light amplifying means, a target value setting means for setting a target value that minimizes a noise factor of the entire amplifier with respect to an input light power of the second light amplifying means, and an excitation light controlling means for controlling an excitation light supply status of the first light amplifying means according to the target value set by the target value setting means, whereby the noise characteristics of the entire amplifier can be optimized by an in-amplifier control to implement excellent noise characteristics.

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G02F 1/35; **H01S 3/10**; **H01S 3/30**

IPC 8 full level

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CPC (source: EP US)

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Cited by

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